AMENDMENTS TO THE CLAIMS

Docket No.: 14113-00048-US

- 1. (Original) An organic electroluminescent device which has at least one emitting layer (EML) which comprises a mixture of at least one hole conductor material and at least one emission material capable of emission, the HOMO of the hole conductor material lying in the range from 4.8 to 5.8 eV (vs. vacuum) and the compound containing one or more spiro-9,9'-bifluorene units and at least one moiety selected from substituted or unsubstituted diarylamino; triarvlamino, carbazole or thiophene units, and the emission material capable of emission is a stilbenamine, stilbenarylene, fused aromatic or heteroaromatic system, rhodamine, coumarin, substituted or unsubstituted hydroxyquinolinate of aluminum, zinc, gallium. bis(p-diarylaminostyryl)arylene, DPVBi (4,4'-bis(2,2-diphenylvinyl)biphenyl), an anthracene, a naphthacene, a pentacene, a pyrene, a perylene, a rubrene, a quinacridone, a benzothiadiazole compound, DCM (4-(dicyanomethylene)-2-methyl-6-(4-dimethylaminostryl)-4H-pyran), DCJTB [(2-(1,1dimethylethyl)-6-[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9yl)ethenyll-4H-pyran-4-ylidenelpropane-dinitrile), complexes of europium, characterized in that at least one of the two materials comprises one or more spiro-9,9' bifluorene units and the weight ratio of hole conductor material to emission material is from 1:99 to 99:1.
- 2. (Cancelled)
- 3. (Cancelled)
- 4. (Cancelled)
- (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized in that wherein the weight ratio of hole conductor material to emission material is from 5:95 to 80:20.
- 6. (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized in that wherein the weight ratio of hole conductor material to emission material is from 5:95 to 25:75.

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 (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized-in-that wherein the glass transition temperature T_g of the hole conductor materials is greater than 90°C.

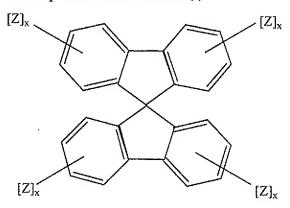
Docket No.: 14113-00048-US

- 8. (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized in that wherein the glass transition temperature T_g of the emission materials is greater than 100° C.
- 9. (Cancelled)
- 10. (Cancelled)
- 11. (Currently amended) The organic electroluminescent device as claimed in claim 1, characterized-in-that wherein one or more layers are produced by a sublimation process.
- 12. (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized in that wherein one or more layers are applied by the OPVD (organic physical vapor deposition) process.
- 13. (Currently amended) The organic electroluminescent device as claimed in claim 1, eharacterized in that wherein one or more layers are applied by printing techniques.
- 14. (Currently amended) The organic electroluminescent device as claimed in claim 13, characterized in that wherein the printing technique is the inkjet process.
- 15. (Currently amended) The organic electroluminescent device as claimed in claim 13, eharacterized in that wherein the printing technique is the LITI process (light-induced thermal imaging).
- 16. (Original) An organic layer for the production of organic electroluminescent devices with the LITI process as claimed in claim 15, comprising at least one hole conductor material and at least one emission material capable of emission, characterized in that at least one of the two materials comprises one or more spiro-9,9'-bifluorene units and the weight ratio of hole conductor material to emission material is from 1:99 to 99:1.

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17. (New) A compound of the formula (I)



Formula (I)

in which Z represents one or more groups of the formula

$$-\left[-AR^{-}\right]_{n}^{Ar^{2}}$$

$$Ar^{3}$$

and in which the symbols and indices are:

AR, Ar¹, Ar² and Ar³

are the same or different at each instance and are each aromatic or heteroaromatic cycles which have from 4 to 40 carbon atoms and may be substituted with substituents R^I at the free positions;

n

is the same or different at each instance and is 0, 1 or 2;

m

is the same or different at each instance and is 1 or 2;

0

is the same or different at each instance and is 1, 2, 3, 4, 5 or 6; where AR on Ar² or on Ar³ or on both, may be bonded in the form of a dendrimer;

Х

is the same or different at each instance and is 0, 1, 2, 3 or 4, with the proviso that the sum of all indices x is unequal to zero or 2,

 \mathbb{R}^1

is the same or different at each instance and is a straight-chain, branched or cyclic alkyl or alkoxy chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by N-R², O, S, -CO-O-, O-CO-O, where one

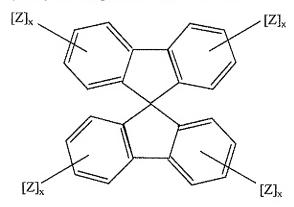
Docket No.: 14113-00048-US

or more hydrogen atoms is optionally replaced by fluorine, an aryl or aryloxy group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals, or Cl, F, CN, N(R²)₂, B(R²)₂, where two or more R¹ radicals may also form an aliphatic or aromatic, mono- or polycyclic ring system with one another;

 R^2

is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals.

18. (New) A compound of the formula (I)



Formula (I)

in which Z represents one or more groups of the formula

$$\begin{array}{c|c} Ar^{1} & Ar^{2} \\ \hline - AR & Ar^{3} \end{array}$$

and in which the symbols and indices are:

AR, Ar¹, Ar² and Ar³

are the same or different at each instance and are each aromatic or heteroaromatic cycles which have from 4 to 40 carbon atoms and may be substituted with substituents R¹ at the free positions;

n

is the same or different at each instance and is 1 or 2;

m

is the same or different at each instance and is 1 or 2;

0

is the same or different at each instance and is 1, 2, 3, 4, 5 or 6; where AR on Ar² or on Ar³ or on both, may be bonded in the form of a dendrimer;

х

is the same or different at each instance and is 0, 1, 2, 3 or 4, with the proviso that the sum of all indices x is unequal to zero,

 \mathbb{R}^1

is the same or different at each instance and is a straight-chain, branched or cyclic alkyl or alkoxy chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by N-R², O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl or aryloxy group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals, or Cl, F, CN, N(R²)₂, B(R²)₂, where two or more R¹ radicals may also form an aliphatic or aromatic, mono- or polycyclic ring system with one another;

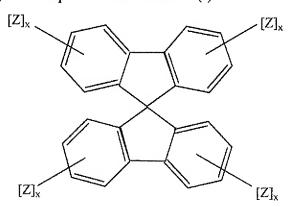
 R^2

is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl group which has from 5 to 40 carbon atoms and in which one or more

Docket No.: 14113-00048-US

carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals.

19. (New). A compound of the formula (I)



Formula (I)

in which Z represents one or more groups of the formula

$$\begin{array}{c|c}
 & Ar^{2} \\
\hline
 & Ar^{3} \\
\hline
 & Ar^{3}
\end{array}$$

and in which the symbols and indices are:

AR, Ar¹, Ar² and Ar³

are the same or different at each instance and are each aromatic or heteroaromatic cycles which have from 4 to 40 carbon atoms and may be substituted with substituents R^1 at the free positions;

n

is the same or different at each instance and is 0, 1 or 2;

m

is the same or different at each instance and is 2;

0

is the same or different at each instance and is 1, 2, 3, 4, 5 or 6; where AR on Ar^2 or on Ar^3 or on both, may be bonded in the form of a dendrimer;

Х

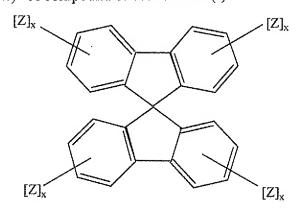
is the same or different at each instance and is 0, 1, 2, 3 or 4, with the proviso that the sum of all indices x is unequal to zero, \mathbb{R}^1

is the same or different at each instance and is a straight-chain, branched or cyclic alkyl or alkoxy chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by N-R², O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl or aryloxy group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals, or Cl, F, CN, N(R²)₂, B(R²)₂, where two or more R¹ radicals may also form an aliphatic or aromatic, mono- or polycyclic ring system with one another;

 R^2

is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals.

20. (New) A compound of the formula (I)



Formula (I)

in which Z represents one or more groups of the formula

$$-\left[\left[-AR^{-}\right]_{n}^{Ar^{2}}\right]_{n}^{Ar^{2}}$$

and in which the symbols and indices are:

AR, Ar¹, Ar² and Ar³

are the same or different at each instance and are each aromatic or heteroaromatic cycles which have from 4 to 40 carbon atoms and may be substituted with substituents R¹ at the free positions;

n

is the same or different at each instance and is 0, 1 or 2;

m

is the same or different at each instance and is 1 or 2;

0

is the same or different at each instance and is 2, 3, 4, 5 or 6; where AR on Ar² or on Ar³ or on both, may be bonded in the form of a dendrimer;

X

is the same or different at each instance and is 0, 1, 2, 3 or 4, with the proviso that the sum of all indices x is unequal to zero,

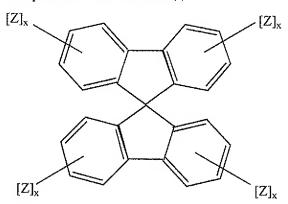
 R^1

is the same or different at each instance and is a straight-chain, branched or cyclic alkyl or alkoxy chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by N-R², O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl or aryloxy group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals, or Cl, F, CN, N(R²)₂, B(R²)₂, where two or more R¹ radicals may also form an aliphatic or aromatic, mono- or polycyclic ring system with one another;

R² is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by O, S, -CO-O-, O-CO-O, where one or more

hydrogen atoms is optionally replaced by fluorine, an aryl group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals.

21. (New) An organic electroluminescent device which comprises a compound of the formula (I)



Formula (I)

in which Z represents one or more groups of the formula

$$-\left[\left\{-AR^{-}\right\}_{n}^{Ar^{2}}\right]_{m}^{Ar^{3}}$$

and in which the symbols and indices are:

AR, Ar¹, Ar² and Ar³

are the same or different at each instance and are each aromatic or heteroaromatic cycles which have from 4 to 40 carbon atoms and may be substituted with substituents R¹ at the free positions;

n

is the same or different at each instance and is 0, 1 or 2;

m

is the same or different at each instance and is 1 or 2;

0

is the same or different at each instance and is 1, 2, 3, 4, 5 or 6; where AR on Ar² or on Ar³ or on both, may be bonded in the form of a dendrimer;

Application No. 10/540,461 Reply to Office Action of January 4, 2008

X

is the same or different at each instance and is 0, 1, 2, 3 or 4, with the proviso that the sum of all indices x is unequal to zero,

 \mathbb{R}^1

is the same or different at each instance and is a straight-chain, branched or cyclic alkyl or alkoxy chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by N-R², O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl or aryloxy group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals, or Cl, F, CN, N(R²)₂, B(R²)₂, where two or more R¹ radicals may also form an aliphatic or aromatic, mono- or polycyclic ring system with one another;

- R² is the same or different at each instance and is H, a straight-chain, branched or cyclic alkyl chain which has from 1 to 22 carbon atoms and in which one or more nonadjacent carbon atoms is optionally replaced by O, S, -CO-O-, O-CO-O, where one or more hydrogen atoms is optionally replaced by fluorine, an aryl group which has from 5 to 40 carbon atoms and in which one or more carbon atoms is optionally replaced by O, S or N and which is optionally substituted by one or more nonaromatic R¹ radicals.
- 22. (New) The organic electroluminescent device as claimed in claim 21, wherein one or more layers are produced by a sublimation process.
- 23. (New) The organic electroluminescent device as claimed in claim 21, wherein one or more layers are applied by the OPVD (organic physical vapor deposition) process.
- 24. (New) The organic electroluminescent device as claimed in claim 21, wherein one or more layers are applied by printing techniques.